

man who is neither optimist nor pessimist must study his cases very closely and reason very accurately to get an approximately clear idea of the real condition.

One word more. I first did the particular operation under discussion tonight, fourteen or fifteen years ago. I have been looking all that time for cases suitable for the operation. I have found five such and on doing the operation on these patients, but one showed that it could have been a success. There is very little credit for me in all this; I can only claim the credit of being persistent, for I am still looking for the suitable case.

### DEMONSTRATION OF A PATIENT SHOWING THE EFFECT OF THE X- RAY ON THE EPITHELIAL STRUC- TURES OF THE SKIN.\*

By DOUGLASS W. MONTGOMERY, M. D., San Francisco.

The patient, a man seventy-seven years of age, first consulted me about four years ago. He then suffered from a group of symptoms that has received the name of epitheliomatosis. These symptoms were particularly marked on the right side of the face, in front of the right ear and extending down on the neck. The whole surface in this region was crumbly, and there were numerous senile patches, which in two instances had developed into well-marked epitheliomas. These epitheliomas were treated with arsenic paste that caused an intense reaction; in addition, the whole side of the face was exposed to the X-ray for about fifteen sittings. I suppose it was a medium tube, placed at eight or nine inches from the surface, and gradually approached, during the last sittings, to four or five inches. This is all from memory, as the notes were lost in the fire. I remember, however, that a distinct reaction was got from the X-ray.

The patient called on me again December 11, 1906, suffering from senile patches of the nose, of the back of the hands, and of the left side of the face. In one situation, near the left angle of the jaw, an epithelioma had developed. This was cut out. Some of the senile patches are being treated with trichloroacetic acid, and the left side of the face, the nose and the back of the hands are being exposed to the X-ray.

The point of great interest, however, is the condition of the right side of the face, where the epitheliomatosis was so developed four years ago, and which was then exposed to the X-ray.

The scars at the site of the former cancers are white, souple, and in every way of good character. The skin of the right side of the face and of the ear-shell has the yellow color incident to age, but it is smooth, pliable, and absolutely devoid of crusts, whereas it was before covered with crumbly crusts and senile patches, and presented the characteristic appearance of epitheliomatosis.

After the X-raying of four years ago, the hair fell out of the scalp adjacent to the right ear, and

also out of the beard of the right side of the face. The hair of the scalp has partially grown in, but that of the right side of the face has not returned; not even as downy hair. The bald skin is not atrophic, and looks much better, from a cosmetic point of view, than the skin of the rest of the face. A curious circumstance is its freedom from wrinkles, giving it the appearance of a retouched photograph.

It is interesting to note here the inhibitory effect the X-ray has permanently exercised on the hyperactivity that constituted the disease of the epithelial structures, both sebaceous and stratified, of this region. In the first place, it definitely stopped the growth of hair, which is an epithelial structure. Of course, the growth of hair is not so vigorous in old age as it is in youth, but this man had a good growth of beard, and the result can therefore be taken as of some value in indicating what can be done with the X-ray as a depilatory.

Then, again, the action of the X-ray on the sebaceous glands has been eminently satisfactory, as it seems to have stopped short at a point that allowed them still to secrete enough oil to render the surface normally unctuous. It may be, however, that the normal unctuousness of the skin in this case is not owing to secretion from the sebaceous glands at all, but from the sweat glands, which we know also secrete oil.

### THE TREATMENT OF PYELITIS AND URETERITIS BY URETHRAL CATHE- TERIZATION AND LAVAGE.\*

By GEORGE L. EATON, M. D., San Francisco.

It is with great pleasure that I bring before you this evening a subject that is greatly neglected, and even condemned by many, namely, the treatment of pyelitis and ureteritis by mechanical measures. For simplicity, I wish first to present for your consideration the etiology of pyelitis, and then take up the microscopical examination of the urine of the patients while under treatment. In reference to the etiology, we are confronted by two separate conditions; constitutional and local infection, and constitutional changes. I refer to cardiac, vascular and nervous, embodying the infectious diseases; namely, malaria, smallpox, septicemia, scarlet fever, diphtheria, syphilis, pneumonia, meningitis, etc.

The local infections are those of the kidney that follow infections of the genito-urinary organs, and are classed as ascending infection. The bladder, prostate gland, seminal vesicles, ureter, endometrium, vagina and rectum, when infected, are capable of producing an ascending ureteritis and pyelitis, which leads to graver kidney lesions if left uncared for. Now the question no doubt to you all is, how infection of the lower genito-urinary tracts, especially the prostate gland, seminal vesicles, ureter, rectum, vagina, and uterus invades the ureters and pelvis of the kidney. This has long been a question in the minds of eminent pathologists, as to the source of invasion, whether by continuity of surface, blood current, or by the lymphatics.

\*Read before the California Academy of Medicine.

\*Read before the Santa Clara Medical Society, Aug. 1906.

I wish to prove to you that this ascending infection is not accomplished entirely by the continuity of surface, as the uterus, vagina and rectum have no direct mucus attachment to the bladder or ureters, and the same will apply, in part, to the seminal vesicles and prostate gland. Regarding the blood, we can in rare instances receive an infection of the pelvis of the kidney by toxins and bacteria emanating from abscesses, malignant growths and tubercular, involvement of different organs, more especially of the prostate gland, seminal vesicles and rectum.

We now come, in my judgment, to the real mode of invasion, that being through the lymphatics. More especially, those of the submucosa of the bladder and ureters, as the following cases, the histories of which, I feel, will substantiate the above theory. I here present the history, urinary analysis and treatment of 23 cases of pyelitis and ureteritis collected during the past 18 months. Of the 23 cases, 8 were bilateral and 15 unilateral. Of those, 14 gave a history of having gonorrhea, 5 abortions, 1 malignancy and 3 tubercular. Those classed as gonorrheal, 10 were males and 5 females. In every male the prostate gland and seminal vesicles were examined and the expressed secretion collected for microscopical findings. The presence of pus, epithelia and fat globules were demonstrated, while in 3 of the above cases gonococci were present. Each case was subjected to ureteral catheterization and the urine collected was examined microscopically for pus, epithelia and bacteria.

Of the 10 cases, 7 had unilateral pyelitis and 3 bilateral. In only one case did I find the gonococcus, and that being one of the bilatereal cases with a ureteritis accompanying the pyelitis. The treatment consisted of passing the ureteral catheter every third or fourth day and about 5 c.c. of a 2% silbamin solution injected into the pelvis of the kidney.

The bladder, after the removal of the cystoscope and catheters was flushed with a 1% solution of silbamin as a precautionary measure against infection. All of the above made rapid improvement as shown by the disappearance of pus and epithelia, with the exception of one bilateral case which was of long standing and in conjunction had a large hydronephrosis. The four female cases classed as gonorrheal had chronic endometritis and cervicitis; in 2 gonococci were found in the cervical secretion, one of which, as determined by further examination, had a unilateral pyeloureteritis, together with a displaced kidney, while the other had a bilateral pyelitis and a pyelo-nephritis. The remaining two had had curetment performed for excessive uterine discharge. Upon urinary analysis, pus and degenerated pelvic and ureteral epithelium was found. Catheterization of the ureters proved that the right ureter and pelvis of one, and the left ureter and pelvis of the other were in a state of disease. All of these four cases were treated by an installation of a 2% silbamin solution through a ureteral catheter, and while the latter two mentioned only received two treatments each, and then discontinued, the first two

mentioned are at present under treatment and are making rapid progress toward recovery.

The 5 cases under the head of abortions gave history of infection at the time of aborting; nevertheless, in every case subinvolution and endometritis were present with more or less tenderness in the regions of the tubes and ovaries. Microscopical examinations were made of the uterine secretions, but nothing of importance was discovered; upon urinary analysis pus and epithelium from the ureters and pelvis of the kidney were discovered; upon ureteral catheterization, 3 of the above cases proved to have unilateral ureteropyelitis, while the remaining two had bilateral pyelitis.

The above mentioned cases were subjected to the routine treatment of ureteral and pelvic lavage and careful data kept of the catheterized urine, all of which has shown a marked improvement.

The case classed as malignant was one of cervicle carcinoma; the patient had had a hysterectomy performed two years previous. (The urine showed unmistakable signs of pyelitis, and upon double catheterization of the ureters a bilateral pyelonephritis was diagnosed; the right kidney exhibited signs of advanced disease owing to the numerous epithelial casts present; there was also a great amount of albumen and pus.) This case, like the former ones, was treated by lavage of the kidney pelvis, and is at present under treatment, which consists of injecting from 5 to 10 c.c. of an antiseptic solution every other day through the ureteral catheter. To my great surprise the casts and albumen have disappeared and the patient is improving remarkably.

The remaining 3 cases are classed as tubercular, 2 of which are in females who have had operations performed, one having had both tubes, both ovaries and several enlarged pelvic glands removed, all of which were tubercular, while the other woman had the right tube and ovary removed, together with the appendix; the ovary in this case being tubercular. In the male, notwithstanding the fact that no tubercle bacilli were found in the secretions of the seminal vesicles and prostate, there was unmistakable evidence present to warrant the case being classed as tubercular, only to be substantiated by a positive reaction from an injection of tuberculin (Koch's) and the presence of bacilli in the catheterized urine from the left kidney; no treatment.

The examination of the urine in the female cases showed tubercle bacilli, pus, albumen, and epithelium from the bladder, ureters and kidney pelvis, while upon ureteral catheterization a double pyelitis with a general tubercular infection of the mucous membrane was found to be present in one, while the other had only a tubercular ureter of the right side. The treatment of these two cases may seem to you a little severe, but it is surprising to know what strong solutions the mucous membrane of the kidney-pelvis and ureter will tolerate, as shown by the following: A saturated aqueous solution of creosote was instilled by the ureteral catheter, once weekly; in the meantime weak solutions of silbamin were used. In the former above-mentioned case, im-

mediate improvement was the result, as shown by the amelioration of symptoms, namely: frequent micturition without pain; temperature and night sweats ceasing, with the decline of the other symptoms. The urine was examined daily, with a perceptible diminution of pus and epithelia; until the time the patient ceased treatment there still remained a few tubercle bacilli.

In the second case of this series there was a tubercular infiltration that partly occluded the ureter about 3 c.c. from the visceral attachment that required dilatation by the ureteral bougie, followed by the instillation of a saturated aqueous solution of creosote once every 5 or 6 days; during the interval a mild irrigation of some antiseptic solution, principally silbamin, oxycyanid of mercury, or normal salt. Like the former case, immediate improvement was the result, as shown by the cessation of pain, frequent urination and a drop in p. m. temperature. The urine was examined before each treatment so as to note if there followed any improvement, and also to govern the strength of the solution to be used; at present all pus, epithelia and bacilli have disappeared, she having been under treatment since January 10, 1906. At that time she weighed 103 pounds; at present her weight is about the same, but she is free from all of her former symptoms. In recapitulating the mechanical treatment of pyelitis, pyelonephritis and ureteritis, I wish to emphasize the necessity for a careful examination of the urine previous to, and during the treatment; more especially the microscopical part of the examination, as it will give you more information, and at the same time help regulate the treatment.

## COUNTY SOCIETIES.

### SAN BERNARDINO COUNTY.

The regular meeting of the San Bernardino County Medical Society was held on January 23rd, 1907, in the Y. M. C. A. Building, Redlands, California, President Dr. D. S. Strong presiding. The minutes of the last meeting were read and approved. Immediately after the reading and approval of his report as secretary, Dr. H. Taylor tendered his resignation as secretary of the Society, and asked that it be acted upon at once. Dr. Burke moved that the resignation be accepted, which motion carried. Dr. Tyler then nominated Dr. A. M. Bennett of San Bernardino for secretary. There being no other nominations, Dr. Bennett was duly elected and installed secretary of the Society.

Communications were read from the State Medical Society relative to the next meeting of said State Medical Society, referring to the Anti-Vaccination Bill and calling attention to the postal deficit. Upon motion duly made and seconded, said communications were referred to a committee of three, consisting of Drs. Burke, Blyth and Taltavall. Motion carried.

Dr. Power read a very interesting paper on the

subject of "Ingestion of Water After Anesthesia." The subject was further discussed by Drs. Ide, Burke, Tyler, Hutchinson and Major Charles R. Duer of the English army in India.

Dr. Woods Hutchinson was elected delegate to the next State Medical Society and Dr. W. P. Burke alternate. Dr. W. P. Burke was also instructed to prepare a paper to be read before the State Medical Society. Dr. W. H. Wilmot was voted an honorary member of the Society. The Society adjourned to meet in San Bernardino on the second Wednesday of February.

A. M. BENNETT, Secretary.

### SANTA BARBARA COUNTY.

The Santa Barbara County Medical Society held its regular monthly meeting at the Arlington Hotel on January 14, 1907, at 8 p. m. It was called to order by the president, Dr. W. B. Cunnane, the secretary at his desk. Present: Drs. Barry, Rex, Brown, Conrad, Cunnane, Dial, Flint, Low, Stoddard, Newman, Morrey, Taylor and no visitors.

After the call to order the Society listened to the reading of the minutes of the preceding meeting (Dec. 10, 1906), which were adopted as read. The president called for the election of new officers for the year 1907. An animated election then took place, with the following results:

President, Charles S. Stoddard, M. D.; vice-president, Eugene A. Dial, M. D.; first vice-president-at-large, Wm. A. Rowell, Goleta; second vice-president-at-large, R. W. Brown, M. D., Santa Maria; secretary, Wm. T. Barry, M. D.; treasurer, David A. Conrad, M. D.

On motion the election of delegates to State Association was laid over.

Following the election of officers, Dr. W. H. Flint spoke upon the subject of "Medical Ethics;" Dr. C. S. Stoddard on "Fees and Collections," and Dr. Eugene A. Dial on the "Relations Between Physicians and Druggists." The Society also listened to the presentation by a collection agency of a systematic method of information and collection of which they approved by vote. On motion, the Censors were instructed to report on certain irregular practitioners at present operating in Santa Barbara.

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The Santa Barbara County Medical Society met in regular monthly session at the Chamber of Commerce Monday, February 11, 1907, at 8 p. m. The meeting was called to order by President Dr. C. S. Stoddard, the secretary at his desk. Present: Drs. Barry, Rex, Brown, Conrad, Cunnane, Flint, Mansfield, Newman, Rowell, Stoddard, Bates. Visitors: Dr. H. P. Merriman, Prof. H. A. Adrian, Prof. A. E. Monteith, Principals Adams, George, Hawkenson; also Mrs. Farley and many of the grade teachers of city schools and the following members of the Board of Education: M. B. McDuffie, A. A. Poole, Louis Rinz and others.

The subject for the evening was "School Hygiene," and an effort—which proved entirely successful—was made to make the meeting a popular one. Prof. Adrian, city superintendent, with Prof. Monteith, principal of the High School, discussed fully with the physicians branches of school hygiene, including physical defects in pupils, sexual hygiene and bathing. After considerable discussion, the following resolution, proposed by Prof. Adrian, was unanimously adopted by the Society:

"Resolved, That provision should be made whereby all children entering the receiving classes, the Fifth Grade and the High School may have medical examination to determine physical defects, and the